



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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www.miamidade.gov/pera

NOTICE OF ACCEPTANCE (NOA)

Derbigum Americas, Inc.
4800 Blue Parkway
Kansas City, MO 64130

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Performance Modified Roof Systems over Concrete Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This renews NOA#11-0722.09 and consists of pages 1 through 26.
The submitted documentation was reviewed by Alex Tigera.



NOA No 12-0529.02
Expiration Date: 08/23/13
Approval Date: 08/09/12
Page 1 of 26

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: APP/SBS Modified Bitumen
Deck Type: Concrete
Maximum Design Pressure -495 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Derbigum GP	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum XPS	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor GP	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor XPS	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum GP/FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbigum XPS/FR	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor GP/FR	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
Derbicolor XPS/FR	33'4" x 39.4"; roll weight: 100 lbs.	ASTM D 6223	Mineral surfaced fire resistant modified bitumen glass fiber and polyester reinforced membrane for torch application or Permastic cold adhesive application.
DerbiBrite	33'4" x 39.4"; roll weight: 90 lbs.	ASTM D 6223	Fire resistant modified bitumen fiberglass and polyester composite mat with an acrylic top coating membrane for torch application or Permastic cold adhesive application.
Derbibase	66' x 39.4"; roll weight: 90 lbs.	ASTM D 5147	APP modified bitumen glass fiber base sheet for mechanical attachment or Permastic cold adhesive application.



TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Derbibase Ultra	49.5' x 39.4" roll weight: 102 lbs.	ASTM D5147	APP modified bitumen glass fiber base sheet for mechanical attachment of Permastic cold adhesive application.
PRS Glass Base	108' x 36"; roll weight: 82 lbs.	ASTM D 4601	Asphalt coated fiberglass base sheet for use in hot-mop, mechanically fastened or Permastic cold adhesive application.
PRS Glass Ply IV	180' x 36"; roll weight: 60 lbs.	ASTM D 2178 Type IV	Asphalt coated fiberglass ply sheet for use in hot-mop, or mechanically fastened or Permastic cold adhesive application.
PRS Glass Ply VI	180' x 36"; roll weight: 60 lbs.	ASTM D 2178 Type IV	Asphalt coated fiberglass ply sheet for use in hot-mop or mechanically fastened or Permastic cold adhesive application.
PRS Modified Base	180' x 36" roll weight: 82 lbs.	ASTM D 5147	SBS polymer modified bitumen base sheet.
Bitutak MB	33' x 39.4 roll weight: 89 lbs	ASTM D 6222	APP polymer modified bitumen polyester reinforced membrane.
Bitutak MB (Mineral)	39.4" x 33' roll weight: 103 lbs.	ASTM D 6222	Mineral surfaced APP polymer modified bitumen, polyester reinforced membrane
Permastic	5-gallon pails 55-gallon drums 350-gallong tanks		Asphalt-based adhesive formulated especially for adhering Derbigum/Derbicolor roofing membranes, Derbibase/Ultra , glass ply sheets and glass base sheets.
Permastic IA	5-gallon pails 55-gallon drums 350-gallong tanks		Asphalt-based adhesive formulated especially for adhering base sheets and Derbiboard insulation to concrete, non-nailable substrates or polyisocyanurate.
Permastic IA Strips	125 LF/Roll 6 Rolls/Box 30 Boxes/Pallet		Asphalt-based adhesive formulated especially for adhering Derbiboard insulation to concrete, non-nailable substrates or polyisocyanurate.

APPROVED INSULATIONS:**TABLE 2**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
ACFoam II	various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam III	various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
Derbiboard	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard CA	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
Derbiboard Composite	various	TAS 110	Polyisocyanurate foam insulation	Derbigum Americas, Inc.
High Density Wood Fiberboard	various	TAS 110	Wood fiber insulation board	Generic
Perlite Insulation	Various	TAS 110	Perlite insulation board	Generic
Type X Gypsum	various	TAS 110	Fire resistant rated gypsum	Generic
E'NERG'Y PSI-25	various	TAS 110	Polyisocyanurate foam insulation	Johns Manville
E'NRG'Y-2	various	TAS 110	Polyisocyanurate foam insulation	NRG Barriers, Inc.
Fiberglas	various	TAS 110	Fiber glass roof insulation	Owens-Corning Fiberglas Corp.
Multi-Max-3	various	TAS 110	Polyisocyanurate foam insulation	Rmax Inc.



APPROVED FASTENERS

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	#12 Standard Roofgrip	Base sheet fastening assembly	Various	OMG, Inc.
2.	Dekfast fasteners	Insulation fastener/Plate	Various	Construction Fasteners, Inc.
3.	Tru-Fast HD (#14) Fastener	Insulation fastener/Plate	Various	Tru-Fast
4.	HD Insul-Fixx Fastener	Insulation fastener/Plate	Various	SFS Intec
5.	Insul-Fixx Fastener	Insulation fastener/Plate	Various	SFS Intec
6.	Rawl #14, #15 fasteners	Insulation fastener/Plate	Various	The Rawplug Company Inc.
7.	OlyBond 500	Insulation adhesive	Various	Olympic Manufacturing Group, Inc.
8.	Insta-Stik	Insulation adhesive	Various	Flexible Products
9.	Pliodeck	Insulation adhesive		Ashland Specialty
10.	OMG Heavy Duty	Base sheet fastening assembly	Various	OMG, Inc.
11.	Perlok-O #12 screw	Base sheet fastening assembly	Various	Derbigum Americas, Inc.
12.	Perlok-O #14 screw	Base sheet fastening assembly	Various	Derbigum Americas, Inc.

APPROVED SURFACING:

TABLE 4

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Karnak #97 AF		TAS 121	Roof coating	Karnak



EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Exterior Research & Design, LLC	10720.10.97-1	Uplift TAS 114	10/17/97
Factory Mutual Research Corporation	2W3A6.AM	Class 4470	02/21/97
	2Y3A2.AM	Class 4470	02/21/97
	2B5A5.AM	Class 4470	05/14/97
	1D7A4.AM	Class 4470	11/9/98
	2B5A7.AM	Class 4470	03/1/99
	JI 3002688	Class 4470	03/1/99
	JI3007274	Class 4470	2/7/01
	JI 3003642	Class 4470	2/7/01
	JI 3001472	Class 4470	2/7/01
	JI 3008869	Windstorm Classification	03/19/01
	JI 3017037	Windstorm Classification	03/10/05
	JI 2D5A9.AM	Windstorm Classification	06/22/99
	JI 1Y7A5.AM	Windstorm Classification	01/03/96
	ID 1039-267	Product Name Change Windstorm	07/08/04
	JI 3014452	Product Name Change Windstorm	07/28/03
	ID 01669-267	Product Name Change Windstorm	10/26/05
	JI 3009502	Product Name Change Windstorm	12/21/00
	JI 3014692	Windstorm Classification	08/02/03
	JI 3015444	Windstorm Classification	07/11/03
	JI 3012321	Windstorm Classification	07/29/02
	JI 3027878	Windstorm Classification	01/22/07
IRT-ARCON	PC03-001	Uplift TAS 114-95	01/17/03
	PC03-002	Uplift TAS 114-95	01/17/03
Underwriters Laboratories	R13327	Fire Classification	11/23/92
Atlantic Carribean Roof Consulting	ACRC 07-020	Windstorm Classification	05/01/07
	ACRC 07-021	Windstorm Classification	05/01/07
	ACRC 07-022	Windstorm Classification	05/01/07



APPROVED ASSEMBLIES

Membrane Type:	APP
Deck Type 3I:	Concrete Decks, Insulated
Deck Description:	2500-psi structural concrete or concrete plank.
System Type A(1):	Insulation attached to concrete substrate or optional vapor retarder in Permastic or Permastic IA at an application rate of 1.5 to 2 gal/sq., or a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft ² or (Permastic IA strip at 12" o.c.) or (Pliodeck adhesive at an application rate of ½" wide bead 12" o.c.) or TITSESET or Fas Tac at an application rate of 3 to 3-1/2" wide ribbon in rows 12" o.c.

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet:	One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.
Ply Sheet:	(Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
Membrane:	Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrute, Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.



Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

**Maximum Design
Pressure:**

- 52.5 psf. with Permastic (See General Limitation #9).
- 135 psf. with Permastic IA. (See General Limitation #9).
- 45 psf. With Hot Asphalt. (See General Limitation #9).
- 60 psf. With Permastic IA Strips (See General Limitation #9)
- 105 psf. With Pliodeck adhesive (See General Limitation #9)
- 120 psf. With TITESET or Fas Tac (See General Limitation #9)

Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500-psi structural concrete or concrete plank.

System Type A(2): Insulation attached to concrete substrate or optional vapor retarder in Insta-Stik in continuous $\frac{3}{4}$ " to 1" wide beads 12" o.c.

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply Insta-Stik in continuous $\frac{3}{4}$ " to 1" wide beads 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. \pm 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.



Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -120 psf (See General Limitation #9).



Membrane Type: APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500-psi structural concrete or concrete plank.
System Type A(3): Insulation attached to concrete substrate or optional vapor retarder in Olybond Adhesive Fastener.

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply Olybond Adhesive Fastener through a spray application device at approximately 1 gallon/square and allow to rise to a 1/8" to 1/4" thickness. When the adhesive becomes tacky, the insulation board is placed onto the adhesive and walked in until fully bonded. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. \pm 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.

Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -67.5 psf (See General Limitation #9).



Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500-psi structural concrete or concrete plank.

System Type A(4): Insulation attached to concrete substrate or optional vapor retarder in Olybond 500 Adhesive Fastener.

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A
Multi-Max-3 Minimum 1.5" thick	N/A	N/A
Securock (Optional) Minimum .5" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply Olybond 500 Adhesive Fastener in a ¾" to 1" wide bead at 6" o.c. When the adhesive becomes tacky, the insulation board is placed onto the adhesive and walked in until fully bonded. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Derbibase, Derbibase Ultra or Derbigum GP adhered to the insulated substrate with Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq. or torch applied.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or installed in Permastic adhesive at an application rate of 1-1/2" to 2 gal/sq. to base sheet.



Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

**Maximum Design
Pressure:**

-222.5 psf. With OlyBond 500 and ISO and torch applied base sheet
-212.5 psf. With OlyBond 500 and ISO and Permastic applied base sheet
-195 psf. With OlyBond 500 and ISO and Securock and Permastic applied base sheet
(See General Limitation #9).



Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500-psi structural concrete or concrete plank.

System Type A(5): Insulation attached to concrete substrate in a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft².

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.



Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -150 psf (See General Limitation #9).



Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500-psi structural concrete or concrete plank.

System Type A(6): Insulation attached to concrete substrate in a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft².

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Temple Inland Fiber Base HD6 Minimum .5" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.



Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -262.5 psf (See General Limitation #9).



Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500-psi structural concrete or concrete plank.

System Type A(7): Insulation attached to concrete substrate in a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft².

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite Minimum 1.5" thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A
<u>Top Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Fresco Board or Retro-Fit Board Minimum .5" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.



Surfacing:

Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -180 psf (See General Limitation #9).



Membrane Type: APP

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500-psi structural concrete or concrete plank.

System Type A(8): Insulation attached to concrete substrate in a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft².

All General and System limitations apply.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Minimum .5" thick	N/A	N/A

Note: Insulation panels listed are minimum sizes and dimensions. Apply a full mopping of any approved asphalt within the EVT range at 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of PRS Ply IV, VI, GAF #75 Base Sheet, Derbibase, Performance Modified Base Sheet, PRS Glass Base, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or, Permastic or Permastic IA adhesive at an application rate of 1.5 to 2 gal/sq.

Ply Sheet: (Optional) One or two plies of PRS Ply IV, VI or Derbibase, Derbigum/Derbicolor GP or XPS, Performance Modified Base Sheet, PRS Glass Base, ply sheets, or Derbibase Ultra or Derbigum GP adhered to the insulated substrate with a full mopping of approved mopping asphalt at an application rate of 25 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq., or torch applied.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Derbibrite or Bitutak MB, Bitutak MB Mineral torch applied or in Permastic adhesive to base sheet.

Surfacing: Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. ± 15% or Permastic adhesive at an application rate of 1.5 to 2gal./sq.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq.

Maximum Design Pressure: -210 psf (See General Limitation #9).



Membrane Type: APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500-psi structural concrete or concrete plank.
System Type D(1): All layers of insulation and base sheet simultaneously attached.

All General and System limitations apply.

One or more layers the approved insulations listed below:

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Derbiboard, Derbiboard CA, Derbiboard Composite, Multi-Max Minimum 1.5" thick	N/A	N/A
Perlite Minimum 3/4" thick	N/A	N/A
AC-Foam II, AC-Foam III Minimum 1.3" thick	N/A	N/A
E"NRG"Y-2, PSI-25 Minimum 1.4" thick	N/A	N/A
Fiberglas Minimum 15/16" thick	N/A	N/A
High Density Wood Fiber Minimum 1/2" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Base Sheet: Two plies PRS Glass Base, Owens Corning Fiberglas base sheet, PRS Modified Base, PRS Glass Ply IV, PRS Glass Ply VI, Derbigum GP, Deribase, or Deribase Ultra mechanically fastened to the deck through the insulation as detailed below.

Fastening: Fasten base sheet with Rawl Spikes, Drives or Speed-Lock Toggles with Rawl stress plates at a 4" side lap 24" o.c. and one rows in the center of the sheet 24 o.c.

Ply Sheet: Derbigum GP, PRS Glass Ply IV, PRS Glas Base Sheet, PRS Ply VI, Deribase or Deribase Ultra.



Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Bitutak MB, or Bitutak MB Mineral, torch applied or in Permastic adhesive to base sheet.

Surfacing: Install one of the following (except over Derbicolor GP-XPS/FR or Derbicolor GP-XPS/FR or DerbiBrite):

1. Gravel or slag applied at an application rate of 400 lbs. or 300 lbs. respectively adhered to the insulated substrate with approved mopping asphalt at an application rate of 60 lb./sq. \pm 15%.
2. APOC 400 applied at 1.3 gal./sq.. Karnak 97 applied at an application rate of 1.5 gal./sq.. or Pure Asphalt emulsion at 2 gal./sq. with optional roofing granules. APOC # 302 or ATCO 1851 FR applied at an application rate of 3 gal./sq.. VIP-400 or ATCO 1846 applied at an application rate of 3.5 gal./sq

Maximum Design Pressure: -45 psf. (See General Limitation #9.)

Membrane Type: APP
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500-psi structural concrete or concrete plank.
System Type F(1): (Optional) Base sheet adhered with approved asphalt or Permastic - Permastic IA.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of anchor sheet.

Base Sheet: (Optional) Owens Corning Fiberglas base sheet, PRS Modified Base Sheet, PRS Glass Base Sheet or PRS Glass Ply VI adhered to the insulated substrate with approved mopping asphalt at an application rate of 25 lb/sq. \pm 15% or Permastic or Permastic IA at an application rate of 1.5 to 2gal./sq.

Ply Sheet: (Optional) One ply of Derbibase, Derbigum GP/XPS, or Derbibase Ultra torch adhered to the substrate or in Permastic adhesive in an application rate of 1.5 to 2gal/sq.

Membrane: Derbigum/Derbicolor GP or Derbigum/Derbicolor XPS, Derbigum/Derbicolor GP-FR or Derbigum/Derbicolor XPS-FR, Bitutak MB, or Bitutak MB Mineral torch applied or in Permastic adhesive at an application rate of 1.5 to 2gal/sq. to the base sheet.

Surfacing: Install one of the following:

1. 400-lbs. gravel set adhered in hot asphalt.
2. Karnak 97 applied at a rate of 2 gal./sq.
3. A two part surfacing consisting of a base coat of Thermo 202 at 2 gal./sq. and a final coat of Thermo 101.
4. A two part surfacing consisting of a base coat of Thermo 202 at 2 gal./sq. with a fine gravel embedded in the wet coating and a final surfacing of Thermo # 101 at the manufacturer's specified installation rate.

Maximum Design Pressure: -255 psf. with Permastic. (See General Limitation #9).
-495 psf. with Permastic IA. (See General Limitation #9).

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.



GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All membranes or packaging shall bear the imprint or identifiable marking of the manufacturer's name or logo and the following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.

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11. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

MIAMI-DADE COUNTY
APPROVED

NOA No 12-0529.02
Expiration Date: 08/23/13
Approval Date: 08/09/12
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